

Amendments to the Claims:

1. (Currently Amended) A method for preserving data in a data storage system, the method comprising:

receiving a command to preserve data in the data storage system;

executing a first input and output (I/O) process in the data storage system existing at a selected time relative to the command; and

executing a second I/O process in the data storage system which begins after the selected time, the second I/O process being capable of executing while the first I/O process is executing, wherein the second I/O process is capable of accessing the same data, in the data processing system, as the first I/O process.

2. (Original) The method of claim 1, wherein the selected time is when the command is received and the first I/O process is being executed at the selected time.

3. (Original) The method of claim 1, wherein the first I/O process is being executed on a first storage volume and the second I/O process is being executed on a second storage volume.

4. (Original) The method of claim 1, further comprising acquiring a lock from a lock mechanism to protect a storage location being replicated, the lock mechanism being maintained independent of a first and second storage volumes.

5. (Original) The method of claim 4, further comprising:
acquiring the lock after receiving the command; and
releasing the lock after the second I/O process is completed.

6. (Original) The method of claim 5, wherein the locks are not backed up during a backup operation.

7. (Original) The method of claim 1, further comprising creating a second storage volume based on a first storage volume.

8. (Currently Amended) ~~A machine-readable medium having executable code to cause a machine to perform a method~~ An article of manufacture for preserving data in a data storage system, the method comprising:

a computer useable medium having computer readable instructions embodied therein to cause a computer to perform operations comprising:

receiving a command to preserve data in the data storage system;
executing a first input and output (I/O) process in the data storage system existing at a selected time relative to the command; and
executing a second I/O process in the data storage system which begins after the selected time, the second I/O process ~~being capable of~~ executing while the first I/O process is executing, wherein the second I/O process is ~~capable of~~ accessing the same data, in the data processing system, as the first I/O process.

9. (Currently Amended) The ~~machine-readable-medium~~ article of manufacture of claim 8, wherein the selected time is when the command is received and the first I/O process is being executed at the selected time.

10. (Currently Amended) The ~~machine-readable-medium~~ article of manufacture of claim 8, wherein the first I/O process is being executed on a first storage volume and the second I/O process is being executed on a second storage volume.

11. (Currently Amended) The ~~machine-readable-medium~~ article of manufacture of claim 8, ~~wherein the method further comprises~~ comprising acquiring a lock from a lock mechanism to protect a storage location being replicated, the lock mechanism being maintained independent of a first and second storage volumes.

12. (Currently Amended) The ~~machine-readable-medium~~ article of manufacture of claim 11, ~~wherein the method further comprising~~ comprises:
acquiring the lock after receiving the command; and
releasing the lock after the second I/O process is completed.

13. (Currently Amended) The ~~machine-readable-medium~~ article of manufacture of claim 12, wherein the locks are not backed up during a backup operation.

14. (Currently Amended) The ~~machine-readable-medium~~ article of manufacture of claim 8, ~~wherein the method further comprising~~ comprises creating a second storage volume based on a first storage volume.

15. (Currently Amended) An apparatus for preserving data in a data storage system, comprising:

means for receiving a command to preserve data in the data storage system;

means for executing a first input and output (I/O) process in the data storage system existing at a selected time relative to the command; and

means for executing a second I/O process in the data storage system which begins after the selected time, the second I/O process ~~being capable of~~ executing while the first I/O process is executing, wherein the second I/O process is ~~capable of~~ accessing the same data, in the data processing system, as the first I/O process.

16. (Original) The apparatus of claim 15, wherein the selected time is when the command is received and the first I/O process is being executed at the selected time.

17. (Original) The apparatus of claim 15, wherein the first I/O process is being executed on a first storage volume and the second I/O process is being executed on a second storage volume.

18. (Original) The apparatus of claim 15, further comprising means for acquiring a lock from a lock mechanism to protect a storage location being replicated, the lock mechanism being maintained independent of a first and second storage volumes.

19. (Original) The apparatus of claim 18, further comprising:

means for acquiring the lock after receiving the command; and

means for releasing the lock after the second I/O process is completed.

20. (Original) The apparatus of claim 19, wherein the locks are not backed up during a backup operation.

21. (Original) The apparatus of claim 15, further comprising means for creating a second storage volume based on a first storage volume.

22. (Currently Amended) A data storage system, comprising:

a processing system; and

a memory coupled to the processing system, the memory storing instructions, which when executed by the processing system, cause the processing system to perform the operations of:

receiving a command to preserve data in the data storage system;

executing a first input and output (I/O) process in the data storage system existing at a selected time relative to the command; and

executing a second I/O process in the data storage system which begins after the selected time, the second I/O process ~~being capable of~~ executing while the first I/O process is executing, wherein the second I/O process is ~~capable of~~ accessing the same data, in the data processing system, as the first I/O process.

23. (Original) The method of claim 3, further comprising:
obtaining a snapshot of the first storage volume; and
creating the second storage volume based on the snapshot of the first storage volume.

24. (Original) The method of claim 23, further comprising:
acquiring a lock from a lock mechanism;
writing first data associated with the first I/O process to the first storage volume;
replicating, substantially concurrently, the first data to the second storage volume;
and
releasing the lock.

25. (Original) The method of claim 24, further comprising:
acquiring the lock from the lock mechanism;
writing second data associated with the second I/O process to the second storage volume without replicating the second data to the first storage volume; and
releasing the lock.

26. (Original) The method of claim 25, further comprising:
deactivating the first storage volume after the first I/O process is completed; and
performing a backup operation on the first storage volume.

27. (Currently Amended) The ~~machine-readable medium~~ article of manufacture of claim 10, wherein the method further ~~comprising~~ comprises:
obtaining a snapshot of the first storage volume; and
creating the second storage volume based on the snapshot of the first storage volume.

28. (Currently Amended) The ~~machine-readable medium~~ article of manufacture of claim 27, wherein the method further ~~comprising~~ comprises:
acquiring a lock from a lock mechanism;
writing first data associated with the first I/O process to the first storage volume;

replicating, substantially concurrently, the first data to the second storage volume;
and
releasing the lock.

29. (Currently Amended) The ~~machine-readable-medium~~ article of manufacture of claim 28, wherein the method further comprising comprises:
acquiring the lock from the lock mechanism;
writing second data associated with the second I/O process to the second storage volume without replicating the second data to the first storage volume; and
releasing the lock.

30. (Currently Amended) The ~~machine-readable-medium~~ article of manufacture of claim 29, wherein the method further comprising comprises:
deactivating the first storage volume after the first I/O process is completed; and
performing a backup operation on the first storage volume.

31. (Original) The apparatus of claim 17, further comprising:
means for obtaining a snapshot of the first storage volume; and
means for creating the second storage volume based on the snapshot of the first storage volume.

32. (Original) The apparatus of claim 31, further comprising:
means for acquiring a lock from a lock mechanism;
means for writing first data associated with the first I/O process to the first storage volume;
means for replicating, substantially concurrently, the first data to the second storage volume; and
means for releasing the lock.

33. (Original) The apparatus of claim 32, further comprising:
means for acquiring the lock from the lock mechanism;
means for writing second data associated with the second I/O process to the second storage volume without replicating the second data to the first storage volume; and
means for releasing the lock.

34. (Original) The apparatus of claim 33, further comprising:

means for deactivating the first storage volume after the first I/O process is completed; and
means for performing a backup operation on the first storage volume.